



UNITED STATES DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office

263 13th Avenue South

St. Petersburg, Florida 33701-5505

<http://sero.nmfs.noaa.gov>

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(Sent via Electronic Mail)

Lt. Col. John Litz, Commander
Charleston District, Corps of Engineers
69A Hagood Avenue
Charleston, South Carolina 29403-5107

Attention: Stephen Brumagin

Dear Lt. Colonel Litz:

NOAA's National Marine Fisheries Service (NMFS) reviewed the South Carolina Department of Transportation's (SCDOT) Permittee-Responsible Final Mitigation Plans for Joiner Bay and Long Branch Creek, both dated June 30, 2014. The purpose of the mitigation plans is to compensate for 342.1 acres of freshwater wetland impacts and 4,643 linear feet of stream impacts from construction of Interstate 73, an 80-mile, four-lane roadway crossing three hydrologic unit codes and two ecoregions in South Carolina. As part of the Agency Coordination Team (ACT), NMFS has commented previously on earlier versions of the mitigation plans. In general, NMFS finds the stream mitigation and wetland mitigation plans remain inadequate to offset the loss of aquatic resources from the proposed project.

Long Branch Creek (LBC) Mitigation Plan

The LBC mitigation site is approximately ten miles east of I-95 and just north of Little Pee Dee State Park. The plan is designed to restore and enhance approximately 3,844 and 3,218 linear feet of stream, respectively, along Long Branch and enhance approximately 5,655 linear feet of stream along Indian Pot Branch. Restoration is also proposed for approximately 1,650 linear feet along two unnamed tributaries (UT1 and UT2) that flow into Long Branch. Work includes stabilizing stream banks, planting vegetated buffers, removing invasive species, replanting native hardwoods, improving drainage pathways, and installing appropriate in-stream structures.

The ACT has raised many concerns with the LBC mitigation plan. For the following reasons, NMFS believes the restoration and enhancement of LBC is not suitable compensation for stream impacts from the construction of I-73:

- The LBC mitigation plan does not meet the ACT's goal of a landscape scale mitigation project. The proposed I-73 impacts would occur along approximately 80 miles long area whereas the mitigation site is approximately 2.8 miles.
- LBC's value as a mitigation site is low because Long Branch flows into a dammed pond in Little Pee Dee State Park creating a physical barrier for fish passage and impairing water quality.



- The LBC mitigation plan does not include water quality improvement success criteria, and pollutants may enter the streams from on-site agricultural ditches and farm crossings.
- Inadequate protection by buffers is proposed, especially along the western side of Indian Pot Branch at the southern extent of the site.
- The cumulative impact factor on the mitigation worksheets continue to be based on stream impacts for that watershed, not the entire project. All cumulative impact factors should be 1.5.

Joiner Bay (JB) Mitigation Plan

The 973-acre, JB mitigation site is northwest of the community of Bayboro in Horry County, approximately 10 miles north of Conway. The plan is designed to restore and enhance 116.2 acres and 61.3 acres of wetland, respectively; remove 21 acres of fill; enhance 594.1 acres of soil surface hydrology and vegetation; and enhance 32.1 acres of vegetation. Work to restore groundwater, surface flow dynamics, and wetland hydrology includes removing access roads and logging decks, installing ditch plugs, backfilling ditches, constructing ephemeral pools, scarifying soils in areas previously filled, and mechanically removing raised beds in silviculture stands. In addition, SCDOT would replace the loblolly pine plantation with a fire-managed, wet pine flat/headwater pocosin mosaic.

For the following reasons, NMFS believes the restoration and enhancement of JB is not suitable compensation for stream impacts from the construction of I-73:

- According to SCDOT, the plan has the potential to generate 2,195.6 credits while the proposed project would necessitate 3,485.65 credits. The plan is deficient in meeting required credits.
- The proposed hydrologic success criterion is limited to meeting jurisdictional wetland status (saturation or inundation within the top 12 inches of soil for a minimum of 7 percent of the growing season during average climatic conditions). This criterion does not mean the restored wetlands (116.2 acres) would provide all appropriate and necessary ecosystem services by the end of the project. Further demonstrating the inadequacy of this success criterion is the fact that Figure 13 of the plan shows 21 of 25 gauge already stations met this standard in 2011. Hydrologic success criteria should be tied to a reference site.
- The modeling results on page 50 of the plan indicate site hydroperiods historically averaged 25 percent of growing season (range 5 to 64 percent). This finding further justifies why the hydrologic criterion is not appropriate.
- The model also identifies that currently only 62.6 acres are hydrologically impaired and 39.7 acres of hydrology impacted areas within hydric soils are present on the site. Therefore, it is unclear how the SCDOT has determined that 594.1 acres of soil surface hydrology would be enhanced.
- The influence of the ditches to existing wetlands has not been identified. It is possible that wetlands far from ditches may not necessitate enhancement and therefore may not be appropriate to include in the mitigation acreage.

In summary, NMFS recommends the SCDOT pursue other stream mitigation sites and further investigate the true potential and likely success of the Joiner Bay site. NMFS continues to

recommend the Charleston District not issue a permit for the proposed project until all mitigation plans are approved by the ACT.

NMFS appreciates the opportunity to provide these comments. Please direct related correspondence to the attention of Ms. Jaclyn Daly-Fuchs at our Charleston Area Office. She may be reached at (843) 762-8610 or by e-mail at Jaclyn.Daly@noaa.gov.

Sincerely,



/ for

Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

cc:

COE, Stephen.A.Brumagin@usace.army.mil
DHEC, trumbumt@dhec.sc.gov
SCDNR, mixong@dnr.sc.gov
SCDNR, PerryB@dnr.sc.gov
EPA, Laycock.Kelly@epa.gov
FWS, Karen_Mcgee@fws.gov
F/SER4, David.Dale@noaa.gov
F/SER47, Jaclyn.Daly@noaa.gov